Research Paper Medical Science

A Clinicopathological Study on Adenomyosis Uteri

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ABSTRACT

Adenomyosis is a myometrial lesion which is characterized by the presence of ectopic endometrium within the myometrium with or without hyperplasia of the surrounding myometrium. The study which was carried out from January 2010 to December 2011 over a period of 2 years to study the clinical profile of all the patients whose hysterectomy specimens showed adeno¬myosis. Three hundred and ninety (390) patients were studied. The prevalence of adenomyosis was 24.43%. 86% of the patients were seen in the age group of 31-50 years. 94.3% of the patients were multiparous. The dominant symptom was menorrhagia (75.6%), followed by dys¬menorrhoea (33.3%). DUB was clinically suspected in 33.9% of the cases followed by fibroid (24.6%) and adenomyosis (22.3%). The occurrence of adenomyosis was mostly seen in the age group of 31-50 years in the present study, which was contrary to that which was observed in some other stud¬ies, which showed the maximum occurrence after 40 years. The parity and the clinical symptoms correlated with those of other studies.

KEYWORDS Hysterectomy, Adenomyosis, Menorrhagia.

INTRODUCTION

Adenomyosis is a myometrial lesion which is characterized by the presence of an ectopic endometrium within the myometrium with or without hyperplasia of the surrounding myometrium. The endometrial tissue should be at least 100x field or one low power field (about 2.5 mm) deep from the endomyometrial junction The endometrial glands may be inactive or hormonally responsive. In some cases, the glands are scant or absent and such cases may be mistaken for low-grade endometrial stromal sarcoma. A majority of the cases are diagnosed following the histological examination of hysterectomy specimens, but the exact prevalence in the 'normal' population is unknown. The percentage of hysterectomy specimens which contain adenomyosis varies from 5–70% [1]. This wide variation may be partly explained by the histological criteria which is used and/or by the number of tissue blocks which are examined. The specificity of the pre-operative diagnosis which is based on the clinical picture is poor, ranging from 2.6–26% [2]. A majority of the cases are reported in women who are aged 40–50 years and there is a positive association with the parity also. The patients with adenomyosis present with menorrhagia (40–50%), dysmenorrhoea (10–30%) and metrorrhagia (10–12%) and, occasionally, dyspareunia [3, 4, 5].

MATERIAL AND METHODS

In the period from January 2010- December 2011, 1596 hysterectomy specimens were received and studied at the Department of pathology, GMC Jammu. Adenomyosis was diagnosed when the distance from the endo-myometrial junction to the foci of the adenomyosis was more than one low power field (Fig. 1). For the study, the paraffin sections of all the hysterectomy specimens were examined. 390 patients were diagnosed to be having adenomyosis. The medical records in which the histopathological report was adenomyosis were reviewed and information regarding age, parity, the chief complaints, and the clinical diagnosis was obtained. The data was entered in simple tables and was analyzed.

RESULTS

Of the 390 patients, 46.9% were in the age group of 41-50 years, 39.2% were in the age group of 31-40 years and 10.8% were in the age group of 51-60 years. In the extremes of age, the prevalence decreased to 2.1% in the age group of 21-30 years and 1.0% were above 60 years of age (Table 1). 94.3% of the patients were multiparous. A majority of them were of parity 2 and 3. In nulliparous and uniparous women, the prevalence was 2.6% and 3.1% respectively. In women with a parity of ≥ 5 also, the prevalence was found to be decreased (4.3%)(Table 2). The dominant symptom was menorrhagia (75.6%), followed by dysmenorrhoea (33.3%). Only 8.9% of the patients had chronic pain in the abdomen. Adenomyosis was also diagnosed in patients who had complaints of a mass descending per vagina, post-menopausal bleeding and a mass in the abdomen (Table 3). The pre-operative clinical diagnosis was dysfunctional uterine bleeding(DUB) in 33.9% , fibroid uterus in 24.6%, adenomyosis in 22.3%, uterovaginal prolapse in 15.9%, post-menopausal bleeding in 2.8% and benign ovarian tumours in 0.5% of patients(Table 4).

DISCUSSION

Various aetiologies have been proposed for the development of adenomyosis, including genetic factors [6], increased intrauterine pressure as seen in the multipara, prior uterine surgery [7,8], tamoxifen use [9] and hyperprolactinaemia. The true prevalence of adenomyosis is still unknown. The prevalence of adenomyosis in a study which was done by by Shaikh was 20.6 % [10] and it was 20.6% in a study which was done by Ali [11]. Its incidence was shown to be 26 % in India by Sharqill et al [12], 24.9% in Italy by Vercellin [13] and 6% in West Indies by Raju et al [14]. In our study, the prevalence was 24.43%.

In a study by Anwar Ali, 73.7% of the patients were found to be between 41-50 years of age,16.3% were between 31-40 years of age, 1.6% were between 21-30 years of age and 8.1% were of >50 yrs of age [11]. In Swan's study, the mean age of the patients was 49.5± 3.4 [15]. In a study which was done by Sabin, the percentage of the patients in the age group of 41-50 years was found to be 70% and those in the age group of 31-40 years was found to be 25.5%. Only 2% of the patients were diagnosed with adenomyosis between the ages of 21-30 years and 51-60 years [16]. In a study which was done by Khresiat et al, 94% of the patients were found to be more than 40 years of age [17]. These studies were found to vary from our study in that almost equal num-

bers of patients were diagnosed with adenomyosis in the age group of 31-40 years and 41-50 years.

In a study by Weiss G et al, 58% of the patients were found to have complaints of abnormal vaginal bleeding and 10% had prolapse [15]. In Khreisat's study, 64.71% of the patients had dysmenorrhoea, 70.5% had menorrhagia, 3.92% had post-menopausal bleeding, 74.5% had dyspareunia, and 62.75% had chronic pelvic pain [17]. But in our study, menorrhagia was the predominant symptom in 75.6% of the patients and it was dysmenorrhoea in 33.3% of the patients. In our study, adenomyosis was seen in 18.2% of patients with prolapse and in 3.1% of patients with post-menopausal bleeding. The menorrhagia may have been due to the dysfunctional contractility of the myometrium in patients with adenomyosis.

In a study which was done by Khreisat, 96% of the patients with adenomyosis had a parity of more than 3 [17]. The maximum occurrence was seen in patients with a mean parity of 3.8±2.3SD in a study [7] and it was 2.7 ±1.6 in another study [8]. In our study, a majority of the patients were of parity 2 or 3. This correlated with the hypothesis that pregnancy may facilitate the formation of adenomyosis by allowing the adenomyotic foci to be included in the myometrium due to the invasive nature of the trophoblasts on the extension of the myometrial fibers. According to Reinhold, the specificity of the preoperative diagnosis based on the clinical picture was poor, ranging from 2.6–26% [2]. In our study, the clinical diagnosis was DUB in 33.9%, fibroid in 24.6% and adenomyosis was suspected in 22.3% of the patients.

CONCLUSION

The prevalence of adenomyosis is found to be 24.43% in this study. Adenomyosis was diagnosed frequently in the age group of 40-50 years in other studies while in our study women in the age group of 31-40 years and 41-50 years were equally affected. The data which was obtained from international studies were in consistence with those of our study regarding the parity and the symptoms of adenomyosis.

Adenomyosis is not a rare histopathological finding. Due to diagnostic and therapeutic methods which are being developed as an alternative to hysterectomy, the clinical effects of adenomyosis and its association with other gynaecological conditions, adenomyosis appears to be an issue which should be more intensively investigated in the future.

TABLES

TABLE1
AGE DISTRIBUTION OF ADENOMYOSIS UTERI

AGE	NUMBER	%AGE
21-30	8	2.1
31-40	153	39.2
41-50	183	46.9
51-60	42	10.8
>60	4	1.0
TOTAL	390	100

TABLE 2
PARITY DISTRIBUTION OF ADENOMYOSIS UTERI

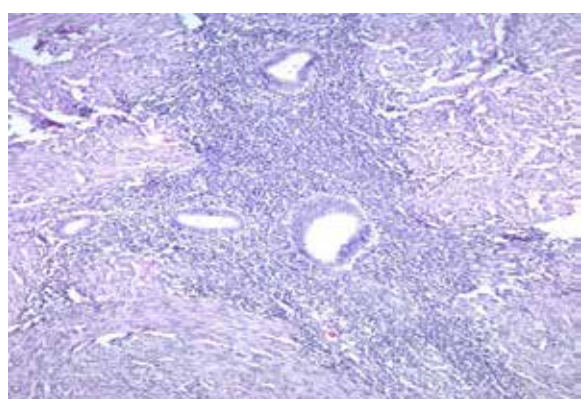
PARITY	NUMBER	%AGE
0	10	2.6
1	12	3.1
2	145	37.2
3	160	41.0
4	46	11.8
5	17	4.3
TOTAL	390	100

TABLE 3
SYMPTOMS IN PATIENTS WITH ADENOMYOSIS UTERI (There is overlap of symptoms)

SYMPTOMS	NUMBER	%AGE
Menorrhagia	295	75.6
Dysmenorrhoea	130	33.3
Pain Lower Abdomen	35	8.9
Mass Descending PV	71	18.2
Postmenopausal Bleeding	12	3.1
Mass Abdomen	3	0.8

TABLE 4
CLINICAL DIAGNOSIS

DIAGNOSIS	NUMBER	%AGE
Fibroid	96	24.6
DUB	132	33.9
Adenomyosis	87	22.3
Postmenopausal Bleeding	11	2.8
Uterovaginal Prolapse	62	15.9
Ovarian Cyst	2	0.5
Total	390	100



(Fig. 1) Ectopic endometrial glands and stroma lying within myometrium. H&E(40x10)

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